BRUHATH BANGALORE MAHANAGARA PALIKE

Name of Work: Improvements to drains at Vishweshwaraiah Layout in Bagalgunte in Ward No: 14

DETAILED ESTIMATE

Ward No. 14					Est. Cost	5000000.00		
Sl. No.	Description	Dimensions				Qty.	Rate	Amount
		No.	L.	B.	D			
1	2	3	4	5	6	7	8	9
1	Removing B.S slab of drain and stacking (Page No 25., I.no.5.32 of KPWD S.R 2016-17).							
	4th Cross							
	from Sidedahalli Main Road to 5th Cross							
		2	225.00	0.90		405.00		
	5th Cross							
	from Dead End Road							
		2	140.00	0.90		252.00		
						657.00		
	Less Broken & Missing Slabs 25%					164.25		
						492.75	65.72	32384.00
							Per Sqm	
	CSR of 2016-17							
	Basic Rate	62.00						
	Add A.W. 6%	3.72						
	TOTAL	65.72						
2	KSRB 300-1 : Earthwork excavation by manual means in ordinary soil involving an average harizintal throw upto 2 meters and an average horizontal lift upto 0.5m, excavated surface leveled and sides neatly dressed, the disposed earth to be leveled neatly after breaking of clods complete as per specifications. MORTH / Chapter 3 (Page No 142., I.No.19.1 of KPWD S.R 2016-17)							
	4th Cross							
	from Sidedahalli Main Road to 5th Cross							
		2	225.00	0.60	0.60	162.00		
	5th Cross							
	from Dead End Road							

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		2	140.00	0.60	0.60	100.80		
	1st Cross							
	Road Portion - soil Road	1	153.00	4.50	0.60	413.10		
						675.90	**86.92**	**58749.00**
							Per Cum	
	CSR of 2016-17							
	Basic Rate	82.00						
	Add A.W. 6%	4.92						
	TOTAL	**86.92**						
3	KSRB 4-1.7 : Providing and laying in position plain cement concrete cumof mix 1:3:6 with OPC cement @ 220kgs, with 20mm and down size graded granite metal coarse aggregates @0.84cum and fine aggregtes @ 0.56cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, plinth and cills, ncluding cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2(Page NO 13., I.No.4.7 of KPWD S.R 2016-17)							
	4th Cross							
	from Sidedahalli Main Road to 5th Cross							
		2 x 2	225.00	0.15	0.10	13.50		
	Road Portion	2	153.00	0.90	0.10	27.54		
						41.04	**5598.92**	**229780.00**
							Per Cum	
	CSR of 2016-17							
	Basic Rate	5282.00						
	Add A.W. 6%	316.92						
	TOTAL	**5598.92**						
4	KSRB 5-14 : Providing and constructing precast concrete solid blocks with compressive strength not less than 3.5 Newton per sqmm with cement mortar 1:4 masonry (quoin, Jamb, closer blocks) with solid concrete blocks of size 40x20x20cms conforming to I.S: 2185/1965 in superstructure including cost of materials, labour charges, scaffolding, curing complete as per specifications.(Page No 25., I.No.5.27.1 of KPWD S.R 2016-17)							
	4th Cross							
	from Sidedahalli Main Road to 5th Cross							
		2 x 2	225.00		0.20	180.00		
	1st Cross							

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	Road Portion	2 x 2	153.00		0.40	244.80		
						424.80	**993.22**	**421920.00**
							Per Cum	
	CSR of 2016-17							
	Basic Rate		937.00					
	Add A.W. 6%		56.22					
	TOTAL		**993.22**					
5	KSRB 4-1.6 ; Providing and laying in position plain cement concrete cumof mix 1:2:4 with cement @ 240kgs, with 20mm and down size gradedgranite metal coarse aggregates @ 0.69 cum and fine aggregtes @0.459cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, plinth and cills, ncluding cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1,4.2(Page NO 12., I.No.4.6 of KPWD S.R 2016-17)							
	1st Cross							
	Road Portion	2 x 2	153.00	0.15	0.100	9.18		
						9.18	**5767.46**	**52945.00**
							Per Cum	
	CSR of 2016-17							
	Basic Rate		5441.00					
	Add A.W. 6%		326.46					
	TOTAL		**5767.46**					
6	Refixing stone slabs of drains and pointing in CM (1:3) (Page 28., I.No.5.33 of KPWD S.R 2016-17).							
	Qty vide Item No: 1					492.75		
						492.75	**80.56**	**39696.00**
	CSR of 2016-17						**Per Sqm**	
	Basic Rate		76.00					
	Add A.W. 6%		4.56					
	TOTAL		**80.56**					
7	Providing precast slab of 100 mm thick including cost of all materials, labour, curing,transportation,loading ,unloading,etc.,complete as per the direction of engineer in charge- Data rate							
	Broken & Missing Slabs Qty vide Item No.1					164.25		
	1st cross							

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		2	153.00	0.90		275.40		
						439.65	**1834**	**806318.00**
							Per Sqm	
8	Providing and fixing Pre cast solid concrete kerb stones made out of CC1:2:4 and finished with CM 1:3 plastering and finishing cutting etc., complete.(Page No 25., I.No.5.29 of KPWD S.R 2016-17)							
	1st Cross	2	153.00			306.00		
			(260/0.45=577 Nos)			**680.00**		
						577.00		
						577.00	**385.84**	**222630.00**
							Per Nos	
	CSR of 2016-17							
	Basic Rate	364.00						
	Add A.W. 6%	21.84						
	TOTAL	**385.84**						
9	KSRRB 800-1. Painting two coats after filling the surface with synthetic enamel paint in approved shades on new plastered concrete surfaces, with materials, labour complete as per specifications. MORTH Chapter 8 (Page No.182., I.No.24.1 of KPWD S.R.2016-17)							
	1st Cross							
	Road Portion	2	153.00		0.350	107.10		
						107.10	**63.60**	**6812.00**
							Per Cum	
	CSR of 2016-17							
	Basic Rate	60.00						
	Add A.W. 6%	3.60						
	TOTAL	**63.60**						
10	KSRRB 300-58. Compaction of original ground with maximum of 6 passes of 8 to 10 tonnes power roller including filling in depression occuring during rolling including cost of all labour, HOM of machinery complete as per specifications. MORTH / Chapter 3 (Page No. 149 I.No.19.64 of KPWD S.R 2016-17)							
	1st Cross							
	Road Portion	1	153.00	4.50		688.50		
						688.50	**5.30**	**3649.00**
							Per Sqm	
	CSR of 2016-17							
	Basic Rate	5.00						

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	Add A.W. 6%		0.30					
	TOTAL		**5.30**					
11	Construction of Sub Grade and earthen Shoulders with approved material Gravel/Murrum With all Lifts & Leads transporting to site, Spreading Grading to required slope and compacted to meet requirement of Table No.300.2 complete as per specifications (including cost of earth , watering Charges & Compaction by vibratory roller) MORTH Specification No.305 (Page no.148,1 no 19.62 of KPWD S.R 2016-17)							
	1st Cross							
	Road Portion	1	153.00	4.50	0.15	103.28		
						103.28	**350.86**	**36235.00**
							Per Cum	
	CSR of 2016-17							
	Basic Rate		331.00					
	Add A.W. 6%		19.86					
	TOTAL		**350.86**					
12	KSRRB M400-6.1. Construction of granular sub-base by providing close graded material, mixing in a mechaical mix plant at OMC, carriage of mixed material to work site, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the desired density, complete as per specifications. A. Plant Mix Method.Close graded granular sub-base material as per 400-1 For Grading- II Materia (Page No.155., I. No.20.5.1 of KPWD S.R 2016-17)							
	1st Cross							
	Road Portion	1	153.00	4.50	0.25	172.13		
						172.13	**1546.54**	**266198.00**
							Per Cum	
	CSR of 2016-17							
	Basic Rate		1459.00					
	Add A.W. 6%		87.54					
	TOTAL		**1546.54**					

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13	Providng, laying, spreading and compacting crushed stone aggregates of granite/trap/basalt to Wet Mix Macadam specification including premixing the material with water of OMC in mechanical mix plant carriage of mixed material by tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specfications. MORTH Specification NO.406 (Page No. 158,I.No.20.18 of KPWD S.R.2016-17)							
	1st Cross							
	Road Portion	1	153.00	4.50	0.20	137.70		
	Pot Holes							
	4th Cross	2	3.00	3.50	0.20	4.20		
		3	2.50	4.00	0.20	6.00		
		1	4.00	3.60	0.20	2.88		
	5th Cross							
		2	3.00	2.70	0.20	3.24		
		4	3.00	2.00	0.20	4.80		
						158.82	**1768.08**	**280806.00**
							Per Cum	
	CSR of 2016-17							
	Basic Rate	1668.00						
	Add A.W. 6%	100.08						
	TOTAL	**1768.08**						
14	KSRRB M500-6. Providing and applying primer coat with S.S. bitumen emulsion on prepared surface of granular base such as WBM,WMM ,including clearing of road surface and spraying primer at the rate of 0.60 kg / sqm using mechanical means complete as per Specifications. MORTH Specification No. 502 (page no.161., I.No.21.6 of KPWD S.R.2016-17)							
	1st Cross							
	Road Portion	1	153.00	4.50		688.50		
						688.50	**27.56**	**18975.00**
							Per Sqm	
	CSR of 2016-17							
	Basic Rate	26.00						
	Add A.W. 6%	1.56						
	TOTAL	**27.56**						

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15	KSRB 500-2 : Cleaning the existing Black Topped surface with brooms, soft brushes and finally dusting with old gunny bags and /or compressed air to receive bituminous treatment including cost of all materials, labour, HOM of amchiineries complete as per specifications. Specification No. KRBS 500-2.4.2 MORTH Specification No.502-4.2 & 503-3.1 .(Page No 161., I.No.21.2 of KPWD S.R 2016-17)							
	4th Cross							
	from Sidedahalli Main Road to 5th Cross							
		1	225.00	5.50		1237.50		
	5th Cross							
	from Dead End Road							
		1	140.00	5.50		770.00		
						2007.50	**3.18**	**6384.00**
							Per Sqm	
	CSR of 2016-17							
	Basic Rate		3.00					
	Add A.W. 6%		0.18					
	TOTAL		**3.18**					
16	KSRRB 500-7 : Providing and applying tack coat using 80/100 grade bitumen (VG10) on the prepared black topped surfaces at 2.5 kg per 10 sqm heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH / Chapter 5 (Page No.161, Item No. 21.7 of KPWD S.R.2016-2017)							
	4th Cross							
	from Sidedahalli Main Road to 5th Cross							
		1	225.00	5.50		1237.50		
	5th Cross							
	from Dead End Road							
		1	140.00	5.50		770.00		
	1st Cross							
		1	153.00	4.50		688.50		
						2696.00		
	For BM and BC (2*2605)					**5392.00**	**12.72**	**68586.00**
							Per Sqm	
	CSR of 2016-17							
	Basic Rate		12.00					
	Add A.W. 6%		0.72					

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	TOTAL	**11.66**						
17	SRRB M500-11 : Providing and laying bituminous Macamdam on prepared surface with crushed coarse aggregates as design mix for base/binding course including loading of agregates with F.E loader, hot mixing of stone aggregates and bitumen in hot mix plant 40 tonne capacity transporting the mixed material in tipper to paver and laying mixed materials paver finisher to the required level and grade, roo lling by power roller to achieve the desired density but excluding cost of primer / tack coat including lead, lift and cost of all materials, labour HOM of machineries complete as per specifications using TPH capacity HMP with sensor paver Gr-II (50mm to 75mm) with 3.3% VG-30 Bitumen (Page No.162, Item No. 21.11.5 of KPWD S.R 2016-17)							
	4th Cross							
	from Sidedahalli Main Road to 5th Cross							
		1	225.00	5.50	0.05	61.88		
	5th Cross							
	from Dead End Road							
		1	140.00	5.50	0.05	38.50		
	1st Cross							
		1	153.00	4.50	0.05	34.43		
						134.80	**5546.98**	**747733.00**
							Per Cum	
	CSR of 2016-17							
	Basic Rate	5233.00						
	Add A.W. 6%	313.98						
	TOTAL	**5546.98**						
18	KSRRB M500-19 : Providing and laying bituminous concrete 40mm thick with hot mix plant, using crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH Specification clause No.500.9 complete in all respects complete as per specifications.MORTH specification no.509 using 40-60 TPH capacity HMP with Sensor paver Gr- II (30mm to 45mm) with 6% VG-30 bitumen (Page No.165, Item No. 21.23.12 of KPWD S.R 2016-17)							
	4th Cross							
	from Sidedahalli Main Road to 5th Cross							
		1	225.00	5.50	0.04	49.50		

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	5th Cross							
	from Dead End Road							
		1	140.00	5.50	0.04	30.80		
	1st Cross							
		1	153.00	4.50	0.04	27.54		
						107.84	**13649.62**	**1471975.00**
							Per Cum	
	CSR of 2016-17							
	Basic Rate		12877.00					
	Add A.W. 6%		772.62					
	TOTAL		**13649.62**					
19	Add Plastic to Bituminous Concrete 8% of Bitumen							
	Qty Vide Item No: 18					**107.84**	**Cum**	
	8 % of the (107.84*8%) = 8.627*141 kg					**1216.44**		
						1216.44	**27.00**	**32843.75**
							Per Kg	
20	KSRRB M800-13 Road Markig with Hot Applied Thermoplastic compound with Reflectirising glass beads on Bituminous suface:- Providing and laying of Hot applied thermoplastic compund 2.5mm thick including reflectorising glass beads at 250gm/sqm area thickness of 2.5mm is exclusive of surface applied glass beads as per IRC:35 the finished surface to be level uniform and pre firm streads and holes complete as per specficaions (Page No.185,I.No.24.15 of KPWD S.R. 2016-2017)							
	4th Cross							
	from Sidedahalli Main Road to 5th Cross							
		2.5	225.00		0.15	84.38		
	5th Cross							
	from Dead End Road							
		2	140.00		0.10	28.00		
	1st Cross							
		2	153.00		0.10	30.60		
						142.98	**542.72**	**77595.00**
							Per Sqm	
	CSR of 2016-17							
	Basic Rate		512.00					

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(12)

	Add A.W. 6%	30.72					
	TOTAL	**542.72**					
21	Lead charges for conveying the excavated earth including loading and unloading upto 10kms as per directions (Page No.140 SL.No.5 of KPWD S.R 2016-17)						
	Qty.vide item No.1				675.90		
	Limited to				675.90	106.00	71645
						Per Cum	
	for 10 Kms 2.5x 1.28x10=32	32.00					
	Loading & Unloading charges	68.00					
	CSR of 2016-17	100.00					
	Basic Rate	100.00					
	Add A.W. 6%	6.00					
	TOTAL	**106.00**					
					SubTotal		**4948416.75**
22	Q.C 1% Charges						**50000.00**
23	Miscelleneous & other unforseen charges				LS		**1583.25**
					GRAND TOTAL Rs.		**5000000.00**

CERTIFICATE

1 The work spot have been inspected by me and work is found to be necessary.
2 This estimate is prepared as per CSR of 2016-17
3 This work is not split up
4 The provisions were made in this estimate are adequete and essential
5 This works comes under BBMP Limits

Asst.Engineer
Ward No.14

Asst.Executive Engineer
Bagalagunte Sub Division
B.B.M.P.

Executive Engineer
Dasarahalli Division
B.B.M.P.

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